

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Scott E. Jahns et al.

Serial No.: 10/763,861

Filed: January 22, 2008

Docket No.: M190, 113.101/P-9198.00

Title: VESSEL SEALING DEVICES

REMARKS

This is responsive to the Final Office Action mailed on October 29, 2008. Claims 1-18, 20-29, and 48-57 were rejected. . With this response, the specification is amended to correct clerical errors. Claim 2 is cancelled. Claims 16 and 28 are amended to change dependency. Other than the clerical changes, the claims are unchanged, and the rejections are traversed. Claims 1, 3-18, 20-29, and 48-57 remain pending in the application and are presented for reconsideration and allowance.

Specification

The specification has been amended on pages 22, 28, and 35, and amended twice on page 22. These amendments relate to clerical errors. No new matter is added. Applicants respectfully request that the amendments to the specification be entered.

Claim Amendments

Applicants respectfully request entry of the claim amendments after the Final Rejection. Claims 16 and 28 are amended to change dependency. The dependency of claim 16 is amended to similarly track the dependency between claim 52 and 53. Further, the dependency of claim 28 is amended to now depend from a pending, rather than canceled, claim. Also, claim 2 is cancelled. Applicants believe that none of these amendments raise new issue not before considered and thus request entry of the amendments.

Rejection of Claims 1, 3, 4, 9-12, 19, and 20 under 35 U.S.C. § 103(a)

Claims 1, 3, 4, 9-12, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz U.S. Patent No. 5,690,674 ("Diaz") in view of Burbank et al. U.S. Patent No. 6,689,071 ("Burbank").

Claim 1 includes the features of "a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one electrode;" and "a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with

respect to the tool body.” Applicants respectfully submit that these features are not taught or made obvious in the prior art.

The Office Action sets forth on page 3 that “Diaz ‘674 discloses a wound closure that contains a cutting mechanism (at distal end 302 of element 300, see Figure 5).” Applicants respectfully traverse this assertion. Diaz does not teach a cutting mechanism at distal end 302, Figure 5, or anywhere else in the disclosure.

Diaz teaches, “The sleeve 300 for one embodiment is a catheter sheath introducer inserted through a vessel wall 410 to provide access for instruments, such as guidewires, catheters, and balloon angioplasty devices for example, through the passageway 310 into the vascular system of the patient to perform a desired medical procedure.” (Column 4, line 66 to column 5, line 4.) There is no mention, or even suggestion, that the sleeve be used to create an opening in a patient.

Further, there is no suggestion in the prior art to modify the teachings of Diaz to include a cutting mechanism. The sleeve 300 taught in Diaz is a multipurpose tool and, as set forth in the quotation above, is designed to accommodate more than just the plug 100. Using the distal end of Diaz to make an incision, rather than to simply expand a smaller incision, will likely lead to an incision larger than necessary, which is undesirable. Thus, the multipurpose sleeve of Diaz used to expand a smaller incision than the diameter of the sleeve. Note the suggestion of this by comparing the size of the incision in vessel 410 in Figures 9 and 10, where the incision in Figure 10 contracts to the size of the plug waist 130 from the larger outer diameter of the sleeve 310 in Figure 9.

Because there is no suggestion in the prior art to modify the teaching of Diaz to include a cutting mechanism, there is no suggestion to combine the teachings of Diaz with Burbank. Further, as discussed in the amendment submitted on November 21, 2007, Burbank does not meet the features of the claims set forth above. The cutting mechanism does of Burbank does not meet the terms of the claim as set forth above.

Accordingly, Applicants respectfully submit that independent claim 1 is patentably distinguishable from the combination of Diaz and Burbank. A cutting mechanism is not shown

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in Diaz, and the prior art does not suggest a modification to include a cutting mechanism that meets the terms of claim 1. Further, the cutting mechanism of Burbank does not meet the terms of the claim, and therefore it would be missing from any proposed combination of Diaz and Burbank.

Claims 3-4, 9-12, 19, and 20 depend from independent claim 1, which has shown to be patentably distinguishable from Diaz and Burbank. These dependent claims further define the features of independent claim 1, and are patentable by virtue of their dependency. Applicants respectfully submit that claims 3-4, 9-12, 19, and 20 are patentably distinguishable from the prior art.

Accordingly, Applicants submit that claims 1, 3, 4, 9-12, and 20 are patentably distinguishable from the prior art and respectfully request removal of the rejection and for allowance of the claims.

Rejection of Claim 8

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz in view of Burbank, as applied to claim 1, in further view of Fortune U.S. Patent Application No. 2004/0215231 (“Fortune”).

Claim 8 depends from independent claim 1, which has been shown to be patentable over the combination of Diaz and Burbank above. As mentioned, the combination of Diaz and Burbank do not teach the missing features of “a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one electrode,” and “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Applicants respectfully submit that these features are not taught or made obvious in Fortune.

Fortune teaches a device to be inserted into a surgical puncture (See, page 5, paragraph 103). There is no mention in the prior art that the “applicator” of Fortune be used to provide an incision into the vessel 17.

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Accordingly, Applicants respectfully submit that claim 8 is patentably distinguishable from the combination of Diaz and Burbank. A cutting mechanism from claim 1 is not shown in Diaz, and the prior art does not suggest a modification to include a cutting mechanism that meets the terms of claim 1 and thus claim 8. Fortune does not show the cutting method set forth in the claim. Further, the cutting mechanism of Burbank does not meet the terms of the claim, and therefore it would be missing from any proposed combination of Diaz, Burbank, and Fortune. .

Applicants respectfully submit that claim 8 is patentably distinguishable from combination of references. Applicants also respectfully request removal of the rejection and allowance of claim 8.

Rejection of Claims 13-14

Claims 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz in view of Burbank, as applied to claim 1, in further view of LeMole U.S. Patent No. 5,893,369 ("LeMole").

Claims 13 and 14 depend from independent claim 1, which has been shown to be patentable over the combination of Diaz and Burbank above. As mentioned, the combination of Diaz and Burbank do not teach the missing features of "a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one electrode;" and "a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body." Applicants respectfully submit that these features are not taught or made obvious in LeMole.

LeMole does teach a device with a cutting mechanism. As mentioned above, however, the prior art does not suggest a modification to Diaz to include a cutting mechanism to its outer diameter. Even if the prior art did suggest a modification, the combination of Diaz, Burbank, and LeMole would not provide for the cutting mechanism set forth in the claim. As discussed in the Response to the Office Action of November 21, 2007, the cutting mechanism of LeMole would not meet the features of claim 1 -- and thus claims 13 and 14 -- including "a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary

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with respect to the tool body.” Accordingly, Applicants respectfully submit that claims 13 and 14 are patentably distinguishable from the combination of Diaz, Burbank, and LeMole.

Applicants respectfully submit that claims 13-14 are patentably distinguishable from combination of references. Applicants also respectfully request removal of the rejection and allowance of claims 13-14.

Rejection of Claims 15-17

Claims 15-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz in view of Burbank, as applied to claim 1, in further view of Blatter U.S. Patent No. 6,248,117 (“Blatter”).

Claims 15 and 17 depend from independent claim 1, which has been shown to be patentable over the combination of Diaz and Burbank. Applicants respectfully submit that Blatter does not teach the features of claim 1 missing from the combination of Diaz and Burbank.

As mentioned above, however, the prior art does not suggest a modification to Diaz to include a cutting mechanism to its outer diameter. Even if the prior art did suggest a modification, the combination of Diaz, Burbank, and Blatter would not provide for the cutting mechanism set forth in claim 1 -- and thus claims 15 and 17 -- including “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.”

Accordingly, Applicants respectfully submit that claims 15 and 17 are patentably distinguishable from the combination of Diaz, Burbank, and Blatter. A cutting mechanism from claim 1 is not shown in Diaz, and the prior art does not suggest a modification to include a cutting mechanism that meets the terms of claim 1 and thus claim 15 and 17. Further, the cutting mechanisms of Burbank and Blatter do not meet the terms of the claims, and therefore it would be missing from any proposed combination of Diaz, Burbank, and Blatter.

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Applicants respectfully submit that claims 15-17 are patentably distinguishable from combination of references. Applicants also respectfully request removal of the rejection and allowance of claims 15-17.

Rejection of claim 21, 22, 24-26, and 28-29

Claims 21, 22, 24-26, and 28-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Diaz in view of Mollenauer.

Independent claim 21 includes the features of “a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one cutting blade;” and “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Applicants respectfully submit that these features are not taught or made obvious in the prior art.

As discussed above, Diaz does not teach a cutting mechanism. Further, as discussed above, the prior art does not suggest modifying Diaz to include a cutting mechanism. Even if the prior art provided such a suggestion, Mollenauer does not provide a cutting mechanism that meets the claimed features of “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Because these features are missing from each of Diaz and Mollenauer separately, they would be missing from any proposed combination of the references.

Accordingly, Applicants respectfully submit that independent claim 21 is patentably distinguishable from the combination of Diaz and Mollenauer. Claims 22, 24-26, and 28-29 depend from independent claim 21, which has shown to be patentably distinguishable from Diaz and Mollenauer. These dependent claims further define the features of independent claim 21, and are patentable by virtue of their dependency. Applicants respectfully submit that 22, 24-26, and 28-29 are patentably distinguishable from the prior art.

Rejection of Claims 23

Claim 23 is rejected under 35 U.S.C. §103(a) as being unpatentable over Diaz in view of Mollenauer in further view of Fortune.

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Claim 23 depends from independent claim 21, which has been shown to be patentably distinguishable from the combination of Diaz and Mollenauer. Applicants respectfully submit that Fortune does not provide the missing features of “a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one cutting blade;” and “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Because these features are missing from each of the references separately, they would be missing from any proposed combination of Diaz, Mollenauer, and Fortune.

Applicants respectfully submit that claim 23 is patentably distinguishable from combination of references. Applicants also respectfully request removal of the rejection and allowance of claim 23.

Rejection of Claims 48, 50, 51, 55, and 56

Claims 48, 50, 51, 55, and 56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz in view of Gianturco U.S. Patent No. 5,258,000 (“Gianturco”).

Independent claim 48 includes the features of “a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one cutting blade;” and “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Applicants respectfully submit that these features are not taught or made obvious in the prior art.

As discussed above, Diaz does not teach a cutting mechanism. Further, as discussed above, the prior art does not suggest modifying Diaz to include a cutting mechanism. Even if the prior art provided such a suggestion, Gianturco does not provide a cutting mechanism that meets the claimed features of “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Because these features are missing from each of Diaz and Gianturco separately, they would be missing from any proposed combination of the references.

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Accordingly, Applicants respectfully submit that independent claim 48 is patentably distinguishable from the combination of Diaz and Gianturco. Claims 50, 51, 55, and 56 depend from independent claim 48, which has shown to be patentably distinguishable from Diaz and Gianturco. These dependent claims further define the features of independent claim 48, and are patentable by virtue of their dependency. Applicants respectfully submit that 50, 51, 55, and 56 are patentably distinguishable from the prior art.

Applicants respectfully submit that claims 48, 50, 51, 55, and 56 are patentably distinguishable from combination of references. Applicants also respectfully request removal of the rejection and allowance of claim 48, 50, 51, 55, and 56.

Rejection of Claim 49

Claim 49 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz as applied to claim 48, in further view of Fortune.

Claim 49 depends from independent claim 48, which has been shown to be patentably distinguishable from the combination of Diaz and Gianturco. Applicants respectfully submit that Fortune does not provide the missing features of “a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one cutting blade;” and “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Because these features are missing from each of the references separately, they would be missing from any proposed combination of Diaz, Gianturco, and Fortune.

Applicants respectfully submit that claim 49 is patentably distinguishable from combination of references. Applicants also respectfully request removal of the rejection and allowance of claim 49.

Rejection of Claims 52 -54 and 57

Claims 52-54 and 57 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz in view of Gianturco, as applied to claim 48, in further view of Blatter.

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Claims 52-54 and 57 depend from independent claim 48, which has been shown to be patentably distinguishable from the combination of Diaz and Gianturco. Applicants respectfully submit that Blatter does not provide the missing features of “a cutting mechanism for creating the opening in the first blood vessel, the cutting mechanism comprising at least one cutting blade;” and “a tool body fixedly coupled to the cutting mechanism wherein the cutting mechanism is generally stationary with respect to the tool body.” Because these features are missing from each of the references separately, they would be missing from any proposed combination of Diaz, Gianturco, and Blatter.

Applicants respectfully submit that claims 52-54 and 57 are patentably distinguishable from combination of references. Applicants also respectfully request removal of the rejection and allowance of claims 52-54 and 57.

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CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1, 3-18, 20-26, 28-29 and 48-56 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1, 3-18, 20-26, 28-29, and 48-56 are respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Rudy P. Hofmann at Telephone No. (612) 573-2010, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

Scott E. Jahns et al.,

By their attorneys,

Date: January 29, 2009

RPH:cms

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